

REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The Office Action dated July 24, 2007 has been received and its contents carefully reviewed.

Claims 1, 3, 4, and 6 are hereby amended. Claims 2 and 7 were previously canceled. No claims are added. Accordingly, claims 1 and 3-6 are currently pending. Reexamination and reconsideration of the pending claims is respectfully requested.

The Office rejected claims 1, 3, and 6 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,116,243 to Khan *et al.* (hereinafter "*Khan*"). Applicants respectfully traverse this rejection.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP at §2131. The Applicants respectfully submit that *Khan* does not teach each and every element recited in claims 1, 3, and 6 and therefore cannot anticipate these claims. More specifically, *Kahn* fails to describe, at least, "detecting a rotational speed of the motor as the motor freewheels and comparing the detected speed of the motor with a predetermined value; and controlling the driving of the motor to apply a force to the drum after the steps of detecting and comparing, wherein the force applied to the drum causes laundry attached to the inner surface of the drum to separate and fall away from the inner surface of the drum," as recited in independent claim 1. Furthermore, *Kahn* fails to describe, at least, "controlling the driving of the motor by alternating between a freewheeling and a temporarily braked state, after the dewatering step is complete, to apply a force to the drum," as recited in independent claim 6. *Khan* fails to disclose at least these features.

The Office purports that *Khan*'s disclosure of at least two rest periods teaches freewheeling as recited in the claims. See Office Action at p.5, ¶7. *Kahn*, however, does not expressly or inherently describe how the motor comes to rest. It is not expressly taught because *Kahn* only discloses the duration and speed of the spin periods. See *Kahn* col. 6:13-36. "To establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is

necessarily present in the thing described in the reference.” MPEP at §2163.07(a). *Kahn’s* rest periods do not require freewheeling. Applicants assert that, as shown in Fig. 6, the sharp change in “cylinder speed” from a constant 46 rpm to a reduced speed that decreases with a fixed deceleration (the slope of the velocity of the cylinder is fixed at a constant value) indicates complete and constant motor control of the drum during the rest period; quite the opposite of freewheeling. Accordingly, Applicants respectfully request the Office to withdraw the 35 U.S.C. §102(b) rejection of independent claims 1 and 6. Claim 3 depends from independent claim 1. It stands to reason that the 35 U.S.C. §102(b) rejection of this dependent claim should be withdrawn as well.

The Office rejected claims 1 and 3-5 under 35 U.S.C. §103(a) as being unpatentable over *KR 10-2001-0037081* (hereinafter “*KR 10-2001-0037081*”) in view of US Patent Application Publication No. 2003/0046962 to Sonoda *et al.* (hereinafter “*Sonoda*”) and *JP 05-269292* (hereinafter “*JP 05-269292*”).

As required in Chapter 2143.03 of the MPEP, in order “to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.” Applicants submit that neither *KR 10-2001-0037081*, *Sonoda* nor *JP 05-269292* either singularly or in combination, teach or suggest each and every element recited in claims 1 and 3-5. In particular, *KR 10-2001-0037081* fails to disclose, at least, “detecting a rotational speed of the motor as the motor freewheels and comparing the detected speed of the motor, with a predetermined value; and controlling the driving of the motor to apply a force to the drum after the steps of detecting and comparing, wherein the force applied to the drum causes laundry attached to the inner surface of the drum to separate and fall away from the inner surface of the drum,” as recited in independent claim 1.

The Office admits that “*KR 10-2001-0037081* does not teach the use of speed control to determine and prevent unbalanced rotation.” *Office Action* at p. 5. As *KR 10-2001-0037081* does not teach speed control, it cannot teach “detecting a rotational speed of the motor as the motor freewheels and comparing the detected speed of the motor with a predetermined value; and controlling the driving of the motor to apply a force to the drum after the steps of detecting and comparing, wherein the force applied to the drum causes laundry attached to the inner

surface of the drum to separate and fall away from the inner surface of the drum,” as recited in independent claim 1.

Sonoda fails to cure the deficiencies of *KR 10-2001-0037081*. Contrary to the claimed “detecting a rotational speed of the motor as the motor freewheels ...,” as recited in claim 1, *Sonoda*’s operations all occur while the drum is under a powered and controlled rotation, at anywhere from 30 rpm to 1000 rpm. *See Sonoda* at FIGS. 5-6; ¶ 76 (increase revolutions from 30 to 100 rpm); ¶¶ 80-82 (rotating drum at predetermined speed); ¶¶ 94-97 (achieving 1000 rpm).

The Office purports that the primary document teaches stopping and the secondary documents teach controlling the speed to determine unbalanced conditions. *See* Office action at p. 5, ¶7. “If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.” *See* MPEP §2143.04.V. Applicants respectfully submit that the proposed modification of *KR 10-2001-0037081* to include the teachings of *Sonoda* would render *KR 10-2001-0037081* unsatisfactory for its intended purpose.

KR 10-2001-0037081 discloses detecting if an unbalanced condition exists during a braking mode. *See KR 10-2001-0037081* at Abstract. In contrast, *Sonoda* discloses detecting an unbalanced condition while the drum is being driven at a predetermined speed, e.g. at 100 rpm. *See Sonoda* at FIGS. 5-6; ¶ 82. Thus the proposed modification of *KR 10-2001-0037081* to include the teachings of *Sonoda* would render *KR 10-2001-0037081* unsatisfactory for its intended purpose because *Sonoda* teaches detecting while the drum is being driven at a predetermined speed whereas *KR 10-2001-0037081* teaches detecting during the braking mode. Therefore, there is no suggestion or motivation to make the proposed modification of *KR 10-2001-0037081* in view of *Sonoda*.

Furthermore, *KR 10-2001-0037081* teaches preventing or minimizing excessive noise generated by continuous normal braking. *See KR 10-2001-0037081* at Abstract. *KR 10-2001-0037081* also teaches switching from a normal braking mode to a sudden braking mode if an unbalanced condition exists. *See KR 10-2001-0037081* at Abstract. However, *Sonoda* discloses

rotating the drive motor reversely to brake the motor by the reverse rotation when the position of the eccentric load reaches a position exactly above the center of rotation. *See Sonoda* at ¶ 59. Thus the proposed modification of *KR 10-2001-0037081* to include the teachings of *Sonoda* would render *KR 10-2001-0037081* unsatisfactory for its intended purpose. The modification would be unsatisfactory because when an eccentric load has been detected, *Sonoda* teaches constant braking and *KR 10-2001-0037081* teaches sudden braking to prevent or minimize excessive noise generated by constant braking. Therefore, there is no suggestion or motivation to make the proposed modification of *KR 10-2001-0037081* in view of *Sonoda*.

JP 05-269292 also fails to cure the deficiencies of *KR 10-2001-0037081*. *JP 05-269292* relates to “speedily stop[ping] a spinning tub free from noise and shift of the whole washing machine” *JP 05-269292* at Abstract. *JP 05-269292* puts the brake device (10) to an operation state and fully applies a control force to the spinning tub (4) and when revolution speed of the tub reaches a prescribed value, the controller (22) operates the brake device (10) intermittently. *See JP 05-269292* at Abstract. In contrast, Applicants claim “detecting a rotational speed of the motor as the motor freewheels and comparing the detected speed of the motor with a predetermined value; and controlling the driving of the motor to apply a force to the drum after the steps of detecting and comparing, wherein the force applied to the drum causes laundry attached to the inner surface of the drum to separate and fall away from the inner surface of the drum.” The motor of *JP 05-269292* does not freewheel because the brake device applies a control force to the tub until the revolution speed of the tub reaches a prescribed value.

Furthermore, *JP 05-269292* teaches away from the disclosure of *KR 10-2001-0037081* because the controller of *JP 05-269292* operates the brake device intermittently until the rotational speed of the drum decreases to a predetermined value, and releases just before the drum stops rotation to specifically avoid a sudden stop of the drum. *See JP 05-269292* at ¶[0008]. Whereas, *KR 10-2001-0037081* teaches sudden braking. *See KR 10-2001-0037081* at Abstract. Thus, *JP 05-269292* teaches away from the disclosure of *KR 10-2001-0037081* and cannot be combined to teach the features of claim 1.

Accordingly, neither *KR 10-2001-0037081*, *Sonoda* nor *JP 05-269292* singularly or in combination teach or suggest “detecting a rotational speed of the motor as the motor

freewheels and slows to a stop and comparing the detected speed of the motor, with a predetermined value; and controlling the driving of the motor to apply a force to the drum after the steps of detecting and comparing, wherein the force applied to the drum causes laundry attached to the inner surface of the drum to separate and fall away from the inner surface of the drum,” as recited in independent claim 1. Applicants respectfully request the Office to withdraw the 35 U.S.C. 103(a) rejection of independent claim 1. Claim 3-5 depend from independent claim 1. It stands to reason that the 35 U.S.C. §103(a) rejection of these dependent claims should be withdrawn as well.

The application is in condition for allowance. Early, favorable action is respectfully solicited.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the

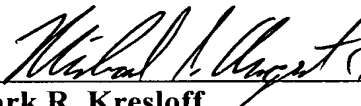
Application No.: 10/720,682
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filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. A duplicate copy of this sheet is enclosed.

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Respectfully submitted,

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